

APPENDIX D.

General Approach to Availability Analysis

The study team used a custom census approach to analyze the availability of minority- and women-owned business enterprises (MBE/WBEs) for ADOT and local agency transportation-related construction and engineering prime contracts and subcontracts. Appendix D further explains the availability methodology and results and discussion presented in Chapter 5. Appendix D includes discussions of:

- A. General approach to collecting availability information;
- B. Development of the interview instruments;
- C. Execution of interviews; and
- D. Additional considerations related to measuring availability.

Keen Independent provides the interview instrument at the end of this appendix.

A. General Approach to Collecting Availability Information

Keen Independent collected information from firms about their availability for ADOT and local government contracts through telephone interviews.

Listings. The firms contacted in the availability interviews primarily came from two sources:

- Company representatives who had previously identified themselves to ADOT as interested in learning about future work by registering with ADOT's Arizona Unified Transportation Registration and Certification System (AZ UTRACS); and
- Businesses that Dun & Bradstreet (D&B) identified in certain transportation contracting-related subindustries in Arizona (D&B's Hoover's business establishment database).

The availability analysis focused on companies in Arizona performing types of work relevant to ADOT and local agency transportation construction and engineering contracts (including subcontracts, trucking and supplies for those contracts). As such, Keen Independent did not include all of the listings in the AZ UTRACS or D&B database in the availability interviews, as described below.

AZ UTRACS. Individuals and businesses interested in learning about ADOT construction- and engineering-related contracting opportunities can subscribe to ADOT's Arizona Unified Transportation Registration and Certification System (AZ UTRACS), an online database of firms that have indicated they are ready, willing and able to perform work on ADOT transportation projects in the State of Arizona. ADOT provided a registration list of about 1,500 subscribers as of April 2014. Registered firms included construction, engineering and related firms.

Because Keen Independent identified Arizona as the relevant geographic market area for the disparity study, the study team only included AZ UTRACS listings for individuals or companies with Arizona mailing addresses. Keen Independent also attempted to exclude from the AZ UTRACS database any listings for government agencies or not-for-profit organizations.

Dun & Bradstreet Hoover's database. Dun & Bradstreet's Hoover's affiliate maintains the largest commercially-available database of businesses in the United States. The study team used D&B listings to supplement the companies identified in the ADOT AZ UTRACS database.

Keen Independent determined the types of work involved in ADOT contract elements by reviewing prime contract and subcontract dollars that went to different types of businesses during the study period. D&B classifies types of work by 8-digit work specialization codes.¹ Figure D-1 on the following page identifies the work specialization codes the study team determined were the most related to the study contract dollars.

Keen Independent obtained a list of firms from the D&B Hoover's database within relevant work codes that had locations within Arizona. D&B provided phone numbers for these businesses. Keen Independent obtained 10,283 business listings from this source (this count includes duplicate records).

Total listings. Keen Independent attempted to consolidate information when a firm had multiple listings across these data sources. After consolidation, the data sources provided 10,492 unique listings for the availability interviews.

Keen Independent did not draw a sample of those firms for the availability analysis; rather, the study team attempted to contact each business identified through telephone interviews and other methods described below.

Telephone interviews. Keen Independent retained Customer Research International (CRI) to conduct telephone interviews with listed businesses. After receiving the list described above, CRI used the following steps to complete telephone interviews with business establishments:

- Firms were contacted by telephone. Up to five phone calls were made at different times of day and different days of the week to attempt to reach each company.
- Interviewers indicated that the calls were made on behalf of the Arizona Department of Transportation for purposes of expanding its list of companies interested in performing ADOT transportation-related work.
- Some firms indicated in the phone calls that they did not work in the transportation contracting industry or had no interest in ADOT work, so no further interview was necessary. (Such interviews were treated as complete at that point.)

Other avenues to complete an interview. Even if a company was not directly contacted by the study team, business owners could ask to complete an availability interview for their transportation contracting-related companies.

- Firm owners could also request that questionnaires be faxed or emailed to them. Fourteen firms returned completed questionnaires via fax and 28 firms returned them via email.
- Keen Independent posted information about the interviews on the www.adotdbestudy.com website maintained throughout the project. Interested companies could request to have a member of the study team contact them for an interview.

¹ D&B has developed 8-digit industry codes to provide more precise definitions of firm specializations than the 4-digit SIC codes or the NAICS codes that the federal government has prepared.

Figure D-1. D&B 8-digit codes for availability list source			
Code	Description	Code	Description
7119906	Soil testing services	29510204	Concrete, bituminous
7820207	Sodding contractor	29510206	Road materials, bituminous (not from ref.)
7829903	Landscape contractors	32720000	Concrete products, nec
14420000	Construction sand and gravel	32720710	Pier footings, prefabricated concrete
14420200	Gravel and pebble mining	32720711	Piling, prefabricated concrete
14420201	Gravel mining	32729903	Paving materials, prefabricated concrete
16110000	Highway and street construction	32729904	Prestressed concrete products
16110100	Highway signs and guardrails	32730000	Ready-mixed concrete
16110101	Guardrail construction, highways	33120400	Structural and rail mill products
16110102	Highway and street sign installation	33120405	Structural shapes and pilings, steel
16110200	Surfacing and paving	33120500	Bar, rod, and wire products
16110201	Airport runway construction	34410200	Fabricated structural metal for bridges
16110202	Concrete construction: roads, hwy, sidewalks	34410201	Bridge sections, prefabricated, highway
16110203	Grading	34490100	Fabricated bar joists, concrete reinforcing bars
16110204	Highway and street paving contractor	34490101	Bars, concrete reinforcing: fabricated steel
16110205	Resurfacing contractor	42120000	Local trucking, without storage
16110206	Sidewalk construction	42120200	Liquid transfer services
16110207	Gravel or dirt road construction	42120201	Liquid haulage, local
16119900	Highway and street construction, nec	42120202	Petroleum haulage, local
16119901	General contractor, hwy and street construction	42129904	Draying, local: without storage
16119902	Highway and street maintenance	42129905	Dump truck haulage
16119903	Highway reflector installation	42129908	Heavy machinery transport, local
16220000	Bridge, tunnel, and elevated hwy construction	42129912	Steel hauling, local
16229900	Bridge, tunnel, and elevated highway, nec	42130000	Trucking, except local
16229901	Bridge construction	42139902	Building materials transport
16229902	Highway construction, elevated	42139904	Heavy hauling, nec
16229903	Tunnel construction	42139905	Heavy machinery transport
16229904	Viaduct construction	42139908	Liquid petroleum transport, non-local
16239902	Manhole construction	49590102	Sweeping service: road, airport, parking lot, etc.
16290400	Land preparation construction	50320100	Paving materials
16299901	Blasting contractor, except building demolition	50320101	Asphalt mixture
16299902	Earthmoving contractor	50320102	Paving mixtures
16299903	Land clearing contractor	50320504	Concrete mixtures
16299904	Pile driving contractor	50329901	Aggregate
16299906	Trenching contractor	50329904	Cement
17210200	Commercial painting	50329905	Gravel
17210300	Industrial painting	50329908	Stone, crushed or broken
17210302	Bridge painting	50399912	Soil erosion control fabrics
17210303	Pavement marking contractor	50510209	Forms, concrete construction (steel)
17310000	Electrical work	50630504	Signaling equipment, electrical
17319903	General electrical contractor	50990304	Reflective road markers
17410100	Foundation and retaining wall construction	52110502	Cement
17410102	Retaining wall construction	52110506	Sand and gravel
17710000	Concrete work	73530000	Heavy construction equipment rental
17710200	Curb and sidewalk contractors	73530100	Oil equipment rental services
17710201	Curb construction	73530101	Oil field equipment, rental or leasing
17710202	Sidewalk contractor	73530102	Oil well drilling equipment, rental or leasing
17710301	Blacktop (asphalt) work	73539901	Cranes and aerial lift equipment, rental or leasing
17719901	Concrete pumping	73539902	Earth moving equipment, rental or leasing
17719902	Concrete repair	73599912	Work zone traffic equipment (flags, cones, barrels, etc.)
17719904	Foundation and footing contractor	73890200	Inspection and testing services
17910000	Structural steel erection	73890800	Mapmaking services
17919900	Structural steel erection, nec	73890801	Mapmaking or drafting, including aerial
17919902	Concrete reinforcement, placing of	73890802	Photogrammetric mapping
17919905	Iron work, structural	73899909	Crane and aerial lift service
17919907	Precast concrete struct. frmg or panels, placing	73899921	Flagging service (traffic control)
17940000	Excavation work	73899937	Pilot car escort service
17949901	Excavation and grading, building construction	87110000	Engineering services
17950000	Wrecking and demolition work	87110400	Construction and civil engineering
17959901	Concrete breaking for streets and highways	87110402	Civil engineering
17959902	Demolition, buildings and other structures	87110404	Structural engineering
17990900	Building site preparation	87119903	Consulting engineer
17990901	Boring for building construction	87120101	Architectural engineering
17990903	Shoring and underpinning work	87130000	Surveying services
17999904	Building mover, including houses	87139900	Surveying services, nec
17999906	Core drilling and cutting	87139901	Photogrammetric engineering
17999907	Dewatering	87310302	Environmental research
17999908	Diamond drilling and sawing	87330201	Archeological expeditions
17999912	Fence construction	87340000	Testing laboratories
17999929	Sign installation and maintenance	87349909	Soil analysis
17999932	Welding on site	87419902	Construction management
29110501	Asphalt or asphaltic materials, made in refineries	87420402	Construction project management consultant
29110505	Road materials, bituminous	87420410	Transportation consultant
29110506	Road oils	87480200	Urban planning and consulting services
29510000	Asphalt paving mixtures and blocks	87480204	Traffic consultant
29510200	Paving mixtures	87489905	Environmental consultant
29510201	Asphalt/asphaltic pvng mixtures (not from ref.)	89990700	Earth science services
29510202	Coal tar paving materials (not from refineries)	89990701	Geological consultant
29510203	Concrete, asphaltic (not from refineries)	89990702	Geophysical consultant

B. Development of the Interview Instruments

Keen Independent developed the interview instruments through the following steps:

- Keen Independent drafted an availability interview instrument; and
- ADOT staff reviewed the draft interview instrument.

The final telephone interview instrument is presented at the end of this appendix.

Interview structure. The availability interview included 12 sections. The study team did not know the race, ethnicity or gender of the business owner when calling a business establishment. Obtaining that information was a key component of the interview.

Areas of interview questions included:

- **Identification of purpose.** The interviews began by identifying ADOT as the interview sponsor and describing the purpose of the study (i.e., “compiling a list of companies interested in construction, maintenance or design on highway and other state or local government transportation-related projects”).
- **Verification of correct business name.** CRI confirmed that the business reached was in fact the business sought out.
- **Contact information.** CRI then collected complete contact information for the establishment and the individual who completed the interview.
- **Verification of work related to transportation-related projects.** The interviewer asked whether the organization does work or provides materials related to construction, maintenance, or design on transportation-related projects (Question 1). Interviewers continued the interview with businesses that responded “yes” to that question.
- **Verification of for-profit business status.** The survey then asked whether the organization was a for-profit business as opposed to a government or not-for-profit entity (Question 2). Interviewers continued the interview with businesses that responded “yes” to that question.
- **Identification of main lines of business.** Businesses then chose from a list of work types that their firm performed in categories of construction-related work, engineering-related work, and supply activities. In addition to choosing all areas that the firms did work, the study team asked businesses to briefly describe their main line of business as an open-ended question.
- **Sole location or multiple locations.** The interviewer asked business owners or managers if their businesses had other locations and whether their establishments were affiliates or subsidiaries of other firms. (Keen Independent combined responses from multiple locations into a single record for multi-establishment firms.)
- **Past bids or work with government agencies and private sector organizations.** The survey then asked about bids and work on past government and private sector contracts. The questions were asked in connection with both prime contracts and subcontracts.

- **Qualifications and interest in future transportation work.** The interviewer asked about businesses' qualifications and interest in future work with ADOT and other government agencies in connection with both prime contracts and subcontracts.
- **Geographic areas.** Interviewees were asked whether they could do work in several geographic areas in Arizona: Central Arizona, Southern Arizona and Northern Arizona.
- **Largest contracts.** The study team asked businesses to identify the value of the largest transportation-related contract or subcontract on which they had bid on or had been awarded in Arizona during the past seven years.
- **Ownership.** Businesses were asked if at least 51 percent of the firm was owned and controlled by women and/or minorities. If businesses indicated that they were minority-owned, they were also asked about the race and ethnicity of owners. The study team reviewed reported ownership against other available data sources such as DBE and MBE directories.
- **Business background.** The study team asked businesses to identify the approximate year in which they were established. The interviewer asked several questions about the size of businesses in terms of their revenues and number of employees. For businesses with multiple locations, this section also asked about their revenues and number of employees across all locations.
- **Potential barriers in the marketplace.** Establishments were asked a series of questions concerning general insights about the marketplace and ADOT contracting practices including obtaining loans, bonding and insurance. The interview also included an open-ended question asking for any additional barriers or general thoughts about contracting in Arizona. In addition, the interview included a question asking whether interviewees would be willing to participate in a follow-up interview about marketplace conditions.

C. Execution of Interviews

Keen Independent held planning and training sessions with CRI as part of the launch of the availability interviews. CRI began conducting full availability interviews in April of 2014 and completed the interviews in early June. CRI provided Keen Independent with weekly data reports.

To minimize non-response, CRI made at least five attempts at different times of day and on different days of the week to reach each business establishment. CRI identified and attempted to interview an available company representative such as the owner, manager or other key official who could provide accurate and detailed responses to the questions included in the interview.

Establishments that the study team successfully contacted. Figure D-2 presents the disposition of the businesses the study team attempted to contact for availability interviews.

Note that the following analysis is based on business counts after Keen Independent removed duplicate listings (beginning list of 10,492 unique businesses).

Figure D-2.
Disposition of
attempts to
interview
business
establishments

Note:

Study team made at
least five attempts to
complete an interview
with each establishment.

Source:

Keen Independent from
2014 availability
Interviews.

	Number of firms	Percent of business listings
Beginning list (unique businesses)	10,492	
Less non-working phone numbers	1,378	
Less wrong number	607	
Firms with working phone numbers	8,507	100.0 %
Less no answer	3,593	42.2
Less could not reach responsible staff member	274	3.2
Less unreturned fax/email	356	4.2
Firms successfully contacted	4,284	50.4 %

Non-working or wrong phone numbers. Some of the business listings that the study team attempted to contact were:

- Non-working phone numbers (1,378); or
- Wrong numbers for the desired businesses (607).

Some non-working phone and wrong numbers reflected business establishments that closed, were sold or changed their names and phone numbers between the time that a source listed them and the time that the study team attempted to contact them.

Working phone numbers. As shown in Figure D-2, there were 8,507 businesses with working phone numbers that the study team attempted to contact. For various reasons, the study team was unable to contact some of those businesses:

- **No answer.** Some businesses could not be reached after at least five attempts at different times of the day and on different days of the week (3,593) establishments.
- **Could not reach responsible staff member.** For a small number of businesses (274), a responsible staff person could not be reached after repeated attempts.
- **Unreturned fax/email.** The study team sent faxes or emailed the availability questionnaires upon request. There were 356 businesses that requested such surveys but did not return them.

After taking those unsuccessful attempts into account, the study team was able to successfully contact 4,284 businesses, or 50 percent of those with working phone numbers.

Establishments included in the availability database. Figure D-3 presents the disposition of the 4,284 businesses the study team successfully contacted and how that number resulted in the 1,072 businesses the study team included in the availability database.

Figure D-3.
Disposition of
successfully
contacted
businesses

Source:
Keen Independent from
2014 availability
Interviews.

	Number of firms
Firms successfully contacted	4,284
Less businesses not interested in discussing availability for ADOT work	1,158
Less language barrier	6
Firms that completed interviews about business characteristics	3,120
Less no road and highway related work	1,692
Less not a for-profit business	356
Firms included in availability database	1,072

Establishments not interested in discussing availability for ADOT work. Of the 4,284 businesses that the study team successfully contacted, 1,158 were not interested in discussing their availability for ADOT work.

Language barriers. Businesses with language barriers during an initial call were re-contacted by a Spanish-speaking CRI interviewer. The interviewee was asked if there was anyone available to perform the interview in English. If not, Questions 1 and 2 of the instrument were asked in Spanish. If the firm appeared that it performed transportation related work, the interviewer asked if the company would like to complete an email or faxed questionnaire (in English), which was then sent. This approach appeared to nearly eliminate any language barriers to participating in the availability interviews. Only six firms successfully contacted by CRI appeared to not participate due to language barriers. Thus, 3,120 of successfully-contacted businesses (73%) completed availability interviews.

Businesses included in the availability database. Many firms completing interviews were excluded from the final availability database because they indicated that they did not perform work related to transportation contracting or reported that they were not a for-profit business:

- Keen Independent excluded 1,692 businesses that indicated that they were not involved in transportation contracting work.
- Of the completed interviews, 356 indicated that they were not a for-profit business (including non-profits, government agencies or homes). Interviews ended when respondents reported that their establishments were not for-profit businesses.

After those final screening steps, the interview effort produced a database of 1,072 businesses potentially available for ADOT work.

Coding responses from multi-location businesses. As described above, there were multiple responses from some firms. Responses from different locations of the same business were combined into a single, summary data record after reviewing the multiple responses.

D. Additional Considerations Related to Measuring Availability

The study team made several additional considerations related to its approach to measuring availability, particularly as they related to ADOT's implementation of the Federal DBE program.

Not providing a count of all businesses available for ADOT work. The purpose of the availability interviews was to provide precise and representative estimates of the percentage of MBE/WBEs potentially available for ADOT work. The availability analysis did not provide a comprehensive listing of every business that could be available for ADOT work and should not be used in that way. Federal courts have approved the custom census approach to measuring availability that Keen Independent used in this study. The United States Department of Transportation's (USDOT's) "Tips for Goals Setting in the Disadvantaged Business Enterprise (DBE) Program" also recommends a similar approach to measuring availability for agencies implementing the Federal DBE Program.²

Not using MBE/WBE or DBE directories, prequalification lists or bidders lists. USDOT guidance for determining MBE/WBE availability recommends dividing the number of businesses in an agency's DBE directory by the total number of businesses in the marketplace, as reported in U.S. Census data. As another option, USDOT suggests using a list of prequalified businesses or a bidders list to estimate the availability of MBE/WBEs for an agency's prime contracts and subcontracts.

The methodology applied in this study takes a custom census approach to measuring availability and adds several layers of refinement to a simple head count approach. For example, the interviews provide data on businesses' qualifications, relative bid capacity and interest in ADOT work, which allowed the study team to take a more refined approach to measuring availability. Court cases involving state implementation of the Federal DBE Program have approved the use of a custom census approach to measuring availability.

Note that Keen Independent used DBE directories and other sources of information to confirm information about the race/ethnicity and gender of business ownership that it obtained from availability interviews. The study team re-contacted companies for clarification in the event of any inconsistencies in race, ethnicity and gender ownership information for the firm.

Using D&B lists. Dun & Bradstreet was one source of business listings in Keen Independent's availability analysis. Note that D&B does not require firms to pay a fee to be included in its listings — it is completely free to listed firms. D&B provides the most comprehensive private database of business listings in the United States. Even so, the database does not include all establishments operating in Arizona due to the following reasons:

- There can be a lag between formation of a new business and inclusion in D&B listings, meaning that the newest businesses may be underrepresented in the sample frame.
- Although D&B includes home-based businesses, those businesses are more difficult to identify and are thus somewhat less likely than other businesses to be included in D&B listings. Small, home-based businesses are more likely than large businesses to be minority- or women-owned, which again suggests that MBE/WBEs might be underrepresented in the final availability database.

Keen Independent is not able to quantify how much, if any, underrepresentation of MBE/WBEs exists in the final availability database. However, Keen Independent concludes that any such underrepresentation would be minor and would not have a meaningful effect on the availability and disparity analyses presented in this

² Tips for Goals Setting in the Disadvantaged Business Enterprise (DBE) Program, <http://www.osdbu.dot.gov/dbeprogram/tips.cfm>

report. Keen Independent also used the ADOT AZ UTRACS source of business listings for the availability analysis, which might capture some firms not included in the D&B data.

Selection of specific subindustries. Keen Independent identified specific subindustries when compiling business listings from Dun & Bradstreet. D&B provides highly specialized, 8-digit codes to assist in selecting firms within specific specializations. However, there are limitations when choosing specific D&B work specialization codes to define sets of establishments to be interviewed, which leave some businesses off the contact list. However, Keen Independent use of the ADOT AZ UTRACS data for Arizona helps to mitigate this potential concern.

Non-response bias. An analysis of non-response bias considers whether businesses that were not successfully interviewed are systematically different from those that were successfully interviewed and included in the final data set. There are opportunities for non-response bias in any survey effort. The study team considered the potential for non-response bias due to:

- Research sponsorship;
- Work specializations; and
- Language barriers.

Research sponsorship. Interviewers introduced themselves by identifying ADOT as the interview sponsor because businesses may be less likely to answer somewhat sensitive business questions if the interviewer was unable to identify the sponsor.

Work specializations. Businesses in highly mobile fields, such as trucking, may be more difficult to reach for availability interviews than businesses more likely to work out of fixed offices (e.g., engineering firms). That assertion suggests that response rates may differ by work specialization. Simply counting all interviewed businesses across work specializations to determine overall MBE/WBE availability would lead to estimates that were biased in favor of businesses that could be easily contacted by email or telephone.

However, work specialization as a potential source of non-response bias in the availability analysis is minimized because the availability analysis examines businesses within particular work fields before determining an MBE/WBE availability figure. In other words, the potential for trucking firms to be less likely to complete an interview is less important because the percentage of MBE/WBE availability is calculated within trucking before being combined with information from other work fields in a dollar-weighted fashion. In this example, work specialization would be a greater source of non-response bias if particular subsets of trucking firms were less likely than other subsets to be easily contacted by telephone.

Potential language barriers. Because of the methods explained previously in this appendix, any language barriers were minimal. Study results do not appear to have been affected by conducting the principal portions of the availability interview in English (including faxed and emailed questionnaires). Callbacks to firms in Spanish when an initial call identified an individual who only spoke Spanish appeared to be effective.

Response reliability. Business owners and managers were asked questions that may be difficult to answer, including questions about revenues and employment.

Keen Independent explored the reliability of interview responses in a number of ways. For example:

- Keen Independent reviewed data from the availability interviews in light of information from other sources such as AZ UTRACS and other vendor information that the study team collected from ADOT. This includes data on the race/ethnicity and gender of the owners of DBE-certified businesses and was compared with interview responses concerning business ownership.
- Keen Independent compared interview responses about the largest contracts that businesses won during the past seven years with actual ADOT and local agency contract data.

A copy of the interview instrument follows.

ADOT Disparity Study — Availability Interview Instrument

Hello. My name is [interviewer name]. We are calling on behalf of the Arizona Department of Transportation (ADOT). This is not a sales call. ADOT [pronounced “A-dot”] is compiling a list of companies interested in working on road and highway, transit or aviation projects. This includes any construction, engineering and design, trucking and materials supply on highways, roads, bridges, transit systems, airports and related projects for state and local governments.

Who can I speak with to get the information we need from your firm?

[After reaching THE OWNER OR an appropriately senior staff member, the interviewer should re-introduce the purpose of the survey and begin with questions]

[IF NEEDED ... We are contacting thousands of contractors, engineering firms, trucking companies, suppliers and other types of businesses in Arizona.]

IF INTERVIEWEE REQUESTS ADDITIONAL INFORMATION ... You can visit the study website at www.ADOTdbestudy.com to learn more. And, you can call Vivien Lattibeaudiere at ADOT, 602-712-4071.

[IF ASKED, THE INFORMATION DEVELOPED IN THESE INTERVIEWS WILL ADD TO ADOT’S EXISTING DATA ON COMPANIES INTERESTED IN WORKING WITH THE DEPARTMENT]

X1. I have a few basic questions about your company and the type of work you do. Can you confirm that this is [firm name]?

- ☐ Right company – SKIP TO 1
- ☐ Not right company
- ☐ Refuse to give information – TERMINATE

Y1. Can you give me any information about [firm name]?

- ☐ Yes, same owner doing business under a different name – SKIP TO Y4
- ☐ Yes, can give information about named company
- ☐ Company bought/sold/changed ownership – SKIP TO Y4
- ☐ No, does not have information – TERMINATE
- ☐ Refused to give information – TERMINATE

Y3. Can you give me the complete address or city for [firm name]? – SKIP TO Y5

(NOTE TO INTERVIEWER - RECORD IN THE FOLLOWING FORMAT:

- ☐ STREET ADDRESS _____
- ☐ CITY _____
- ☐ STATE _____
- ☐ ZIP _____

Y4. And what is the new name of the business that used to be [firm name]?

- ☐ (ENTER UPDATED NAME)

Y5. Can you give me the name of the owner or manager of the new business?

- ☐ (ENTER UPDATED NAME)

Y6. Can I have a telephone number for him/her?

- ☐ (ENTER UPDATED PHONE)

Y7. Can you give me the complete address or city for [new firm name]?

- ☐ STREET ADDRESS _____
- ☐ CITY _____
- ☐ STATE _____
- ☐ ZIP _____

Y8. Do you work for this new company?

- ☐ Yes
- ☐ No - TERMINATE

1. Does your firm do any work related to road and highway, transit or aviation projects? This includes any construction, engineering and design, trucking and materials supply on highways, roads, bridges, transit systems, airports and related projects.

- ☐ Yes
- ☐ No

2. Is your firm a business, as opposed to a non-profit organization, a foundation or a government office?

- ☐ Yes
- ☐ No

IF RESPONDENT ANSWERS NO TO QUESTION 1 OR 2, THE SURVEY IS COMPLETE.

IF YES TO QUESTIONS 1 AND 2, CONTINUE TO QUESTION 3.

Type of Work

3. What types of work does your firm perform related to construction, maintenance or design of transportation projects? Please indicate all that apply.

Construction-related

- ☐ Milling
- ☐ Asphalt paving
- ☐ Pavement surface treatment (such as sealing)
- ☐ Portland cement concrete paving
- ☐ Concrete flatwork (sidewalk, curb and gutter)
- ☐ Structural concrete work
- ☐ Concrete pumping
- ☐ Concrete cutting
- ☐ Bridge work
- ☐ General road construction and widening
- ☐ Wrecking and demolition
- ☐ Excavation, grading and drainage
- ☐ Guardrail, signs or fencing
- ☐ Drilling and foundations
- ☐ Steel work
- ☐ Underground utilities
- ☐ Electrical work including lighting and signals
- ☐ Striping or pavement marking
- ☐ Painting for road or bridge projects
- ☐ Temporary traffic control
- ☐ Trucking and hauling
- ☐ Landscaping and related work
- ☐ Erosion control
- ☐ Other _____

Engineering-related

- ☐ Design engineering
- ☐ Transportation planning
- ☐ Construction management
- ☐ Environmental consulting
- ☐ Soils and materials testing
- ☐ Surveying and mapping
- ☐ Other _____

4. Does your firm sell: (Check all that apply.)

- ☐ Aggregate materials supply
- ☐ Asphalt, concrete or other paving materials
- ☐ Traffic or highway signs
- ☐ Fence, guardrail materials
- ☐ Steel
- ☐ Petroleum
- ☐ Other _____

5. Please briefly describe the main line of business at your firm. In what industry would you classify the primary line of work at your firm?

6. Does your firm have offices in multiple locations?

- ☐ Yes ☐ No ☐ Don't know

7. Is your company a subsidiary or affiliate of another firm?

- ☐ Independent
- ☐ Subsidiary of another firm *Parent company name:* _____
- ☐ Affiliate of another firm *Affiliated company name:* _____
- ☐ Don't know

Role in Construction, Maintenance, Engineering or Other Work

8. During the past seven years, has your company submitted a bid or a price quote for any part of a contract for a state or local government agency in Arizona?
- ☐ Yes ☐ No ☐ Don't know
9. **[Answer if 'Yes' to Q8. Otherwise skip to Q10.]** Were those bids or price quotes to work as a prime contractor, a subcontractor, a trucker/hauler, or as a supplier? Check all that apply.
- ☐ Prime Contractor ☐ Trucker / Hauler
- ☐ Subcontractor ☐ Supplier
- ☐ Other _____
10. During the past seven years, has your company worked on any part of a contract for a state or local government agency in Arizona?
- ☐ Yes ☐ No ☐ Don't know
11. **[Answer if 'Yes' to Q10. Otherwise skip to Q12.]** Did your company work as a prime contractor, a subcontractor, a trucker/hauler, or as a supplier? Check all that apply.
- ☐ Prime Contractor ☐ Trucker / Hauler
- ☐ Subcontractor ☐ Supplier
- ☐ Other _____
12. During the past seven years, has your company submitted a bid or a price quote for any part of a contract for a private sector project in Arizona?
- ☐ Yes ☐ No ☐ Don't know
13. **[Answer if 'Yes' to Q12. Otherwise skip to Q14.]** Were those bids or price quotes to work as a prime contractor, a subcontractor, a trucker/hauler, or as a supplier? Check all that apply.
- ☐ Prime Contractor ☐ Trucker / Hauler
- ☐ Subcontractor ☐ Supplier
- ☐ Other _____
14. During the past seven years, has your company worked on any part of a contract for a private sector project in Arizona?
- ☐ Yes ☐ No ☐ Don't know

15. **[Answer if 'Yes' to Q14. Otherwise skip to Q16]** Did your company work as a prime contractor, a subcontractor, a trucker/hauler, or as a supplier? Check all that apply.
- ☐ Prime Contractor ☐ Trucker / Hauler
- ☐ Subcontractor ☐ Supplier
- ☐ Other _____
16. Thinking about future transportation work, is your company qualified and interested in working with ADOT as a prime contractor?
- ☐ Yes ☐ No ☐ Don't know
17. Thinking about future transportation-related work, is your company qualified and interested in working with cities, counties, transit agencies, airports or other local agencies in Arizona as a prime contractor?
- ☐ Yes ☐ No ☐ Don't know
18. Thinking about future transportation-related work, is your company qualified and interested in working with ADOT as a subcontractor, trucker/hauler, or supplier?
- ☐ Yes ☐ No ☐ Don't know
19. Thinking about future transportation-related work, is your company qualified and interested in working with cities, counties, transit agencies, airports or other local agencies in Arizona as a subcontractor, trucker/hauler, or supplier?
- ☐ Yes ☐ No ☐ Don't know

Geographic Areas Your Company Serves in Arizona

20. Can your company do work in Central Arizona (such as in the Maricopa-Pinal [pronounced pea-nal'} county area)?
- ☐ Yes ☐ No ☐ Don't know
21. Can your company do work in Southern Arizona such as the Tucson, Yuma or Wilcox areas?
- ☐ Yes ☐ No ☐ Don't know
22. We are referring to the rest of the state as Northern Arizona. Can your company do work in Northern Arizona?
- ☐ Yes ☐ No ☐ Don't know

Contract History

23. In rough dollar terms, what was the largest road and highway-, transit- or aviation-related contract or subcontract your company was awarded in Arizona during the past seven years? Please include any government or private-sector contracts and any contracts not yet completed.
- | | |
|---|---|
| <input type="checkbox"/> Less than \$100,000 | <input type="checkbox"/> \$10 million up to \$20 million |
| <input type="checkbox"/> \$100,000 up to \$500,000 | <input type="checkbox"/> \$20 million up to \$50 million |
| <input type="checkbox"/> \$500,000 up to \$1 million | <input type="checkbox"/> \$50 million up to \$100 million |
| <input type="checkbox"/> \$1 million up to \$2 million | <input type="checkbox"/> More than \$100 million |
| <input type="checkbox"/> \$2 million up to \$5 million | <input type="checkbox"/> None |
| <input type="checkbox"/> \$5 million up to \$10 million | <input type="checkbox"/> Don't know |
24. Was this the largest road and highway-, transit- or aviation-related contract or subcontract that your company bid on or submitted quotes for in Arizona during the past seven years?
- ☐ Yes ☐ No ☐ Don't know
25. **[Answer if 'No' in Q24.]** What was the largest road and highway-, transit- or aviation-related contract or subcontract that your company bid on or submitted quotes for in Arizona during the past seven years?
- | | |
|---|---|
| <input type="checkbox"/> \$100,000 or less | <input type="checkbox"/> \$10 million up to \$20 million |
| <input type="checkbox"/> \$100,000 up to \$500,000 | <input type="checkbox"/> \$20 million up to \$50 million |
| <input type="checkbox"/> \$500,000 up to \$1 million | <input type="checkbox"/> \$50 million up to \$100 million |
| <input type="checkbox"/> \$1 million up to \$2 million | <input type="checkbox"/> More than \$100 million |
| <input type="checkbox"/> \$2 million up to \$5 million | <input type="checkbox"/> None |
| <input type="checkbox"/> \$5 million up to \$10 million | <input type="checkbox"/> Don't know |

Ownership

26. A business is defined as woman-owned if more than half—that is, 51 percent or more—of the ownership and control is by women. By this definition, is your firm a woman-owned business?
- ☐ Yes ☐ No ☐ Don't know
27. A business is defined as minority-owned if more than half—that is, 51 percent or more—of the ownership and control is African American, Asian, Hispanic, Native American or another minority group. By this definition, is your firm a minority-owned business?
- ☐ Yes ☐ No ☐ Don't know
28. **[Display if Q27 'Yes' is selected.]** Would you say that the minority group ownership is mostly African American, Asian-Pacific American, Subcontinent Asian American, Hispanic American, or Native American?
- ☐ African American ☐ Native American
- ☐ Asian-Pacific American ☐ Other: _____
- ☐ Subcontinent Asian American ☐ Don't know
- ☐ Hispanic American

Business Background

29. About what year was your firm established? _____
30. About how many employees did you have working out of just your location, on average, over the past three years?
- _____
31. Think about the annual gross revenue of your company, considering just your location. Dun and Bradstreet information for that location indicates annual revenue of about [xxx]. Please estimate the annual average for the past three years (or for the years your company was in business if started after 2010).
- ☐ Less than \$1 million ☐ \$14.1 million to \$19.0 million
- ☐ \$1 million to \$4.5 million ☐ \$19.1 million to \$22.4 million
- ☐ \$4.6 million to \$7 million ☐ \$22.5 million or more
- ☐ \$7.1 million to \$12.5 million ☐ Don't know
- ☐ \$12.6 million to \$14.0 million
32. About how many employees did you have, on average, for all of your locations over the past three years?
- _____

33. Think about the annual gross revenue of your company, for all your locations. Please estimate the annual average for the past three years (or for the years your company was in business if started after 2010).

- | | |
|---|---|
| <input type="checkbox"/> Less than \$1 million | <input type="checkbox"/> \$14.1 million to \$19.0 million |
| <input type="checkbox"/> \$1 million to \$4.5 million | <input type="checkbox"/> \$19.1 million to \$22.4 million |
| <input type="checkbox"/> \$4.6 million to \$7 million | <input type="checkbox"/> \$22.5 million or more |
| <input type="checkbox"/> \$7.1 million to \$12.5 million | <input type="checkbox"/> Don't know |
| <input type="checkbox"/> \$12.6 million to \$14.0 million | |

Barriers or Difficulties

Finally, we're interested in whether your company has experienced barriers or difficulties associated with starting or expanding a business in your industry or with obtaining work. Think about your experiences within the past seven years as you answer these questions.

34. Has your company experienced any difficulties in obtaining lines of credit or loans?
- | | |
|-------------------------------------|---|
| <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| <input type="checkbox"/> Don't know | <input type="checkbox"/> Does not apply |
35. Has your company obtained or tried to obtain a bond for a project?
- | | |
|-------------------------------------|---|
| <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| <input type="checkbox"/> Don't know | <input type="checkbox"/> Does not apply |
36. **[Answer if 'Yes' in Q35. Otherwise skip to Q37.]** Has your company had any difficulties obtaining bonds needed for a project?
- | | |
|-------------------------------------|---|
| <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| <input type="checkbox"/> Don't know | <input type="checkbox"/> Does not apply |
37. Have you had any difficulty in licensing or being prequalified for work in Arizona?
- | | |
|-------------------------------------|---|
| <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| <input type="checkbox"/> Don't know | <input type="checkbox"/> Does not apply |
38. Have any insurance requirements on projects presented a barrier to bidding?
- | | |
|-------------------------------------|---|
| <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| <input type="checkbox"/> Don't know | <input type="checkbox"/> Does not apply |

39. Has the size of large projects presented a barrier to bidding?
- ☐ Yes ☐ No
- ☐ Don't know ☐ Does not apply
40. Has your company experienced any difficulties learning about bid opportunities with ADOT?
- ☐ Yes ☐ No
- ☐ Don't know ☐ Does not apply
41. Has your company experienced any difficulties learning about bid opportunities with cities, counties and other local agencies in Arizona?
- ☐ Yes ☐ No
- ☐ Don't know ☐ Does not apply
42. Has your company experienced any difficulties learning about bid opportunities in the private sector in Arizona?
- ☐ Yes ☐ No
- ☐ Don't know ☐ Does not apply
43. Has your company experienced any difficulties learning about subcontracting opportunities in Arizona?
- ☐ Yes ☐ No
- ☐ Don't know ☐ Does not apply
44. Has your company experienced any difficulties obtaining final approval on your work from inspectors or prime contractors?
- ☐ Yes ☐ No
- ☐ Don't know ☐ Does not apply
45. Has your company experienced any difficulties receiving payment in a timely manner?
- ☐ Yes ☐ No
- ☐ Don't know ☐ Does not apply

-
- This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and extend across the width of the page. There are no margins, text, or other markings on the paper.

- ☐ Yes ☐ No

Thank you for your time. This is very helpful for ADOT.